

**APFORGEN Southeast Asian National Coordinators' Meeting  
Held at Forest Research Institute Malaysia (FRIM), Kuala Lumpur, Malaysia  
29.-30. November 2004**

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## **Summary of the Meeting**

### **Abstract**

Asia Pacific Forest Genetic Resources Programme (APFORGEN) Southeast Asia National Coordinators' Meeting was organized by IPGRI and APAFRI at FRIM in Kuala Lumpur, 29-30 November 2004. National Coordinators from six countries, i.e. Mr So Thea (Forestry Administration, Cambodia), Dr Lee Soon Leong (FRIM, Malaysia), Dr Nur Masripatin (CBFTI, Indonesia), Mr Thaung Naing Oo (FRI, Myanmar), Mr Vichien Sumantakul (NPD, Thailand) and Dr Nguyen Hoang Nghia (FSIV, Vietnam) participated in the meeting, together with representatives of IPGRI, APAFRI and FAO.

In the meeting, the current status of forest genetic resources conservation and management (FGR C&M) in participating countries was reviewed and a 3-year action plan was drafted for APFORGEN activities in Southeast Asia. It was noted e.g. that Thailand and Cambodia have recently developed a national FGR conservation strategy. However, the implementation of these strategies may have been slowed down due to scarcity of financial resources as well as major organizational changes in the forestry administration. Each country is in a different situation in the status of FGR activities. For example, in Indonesia, close to 100 agencies doing at least some work related to FGR have been identified. On the other hand, in most countries, the national budget allocation for research on FGR conservation is very small, sometimes nonexistent. The small number and relatively low level of training of staff to conduct research and work on FGR management were identified as constraints in many countries.

The participants discussed the status of integration of FGR in the National Forest Programmes (NFPs) and forest policies. In many cases, FGR may not yet be specifically addressed in the existing forest policies and NFPs. Certain countries, such as Cambodia, Malaysia and Indonesia are currently in the process of revising some of the national policies, plans and legislation related to FGR. Policy analysis and support, exchanging information and creating awareness of FGR e.g. through case studies as well as seeking for international and regional endorsement for the programme have been identified as the priority areas for future work of APFORGEN. Other topics that were discussed in the meeting included e.g. the current status of tree species networks (such as TeakNet) and past FGR-related projects in the regions, as well as the role of FGR management in creating sustainable livelihood options.

## **DAY 1: Monday 29 November 2004**

The opening of the Meeting was chaired by Dr Sim H.-C. of APAFRI. Welcoming remarks were given by Dr V. Ramanatha Rao (Senior Scientist, Genetic Diversity/Conservation, IPGRI-APO), Dr Masakazu Kashio (Forest Resources Officer, FAO Regional Office for Asia and the Pacific,) and Dato' Dr Abdul Razak Mohd. Ali (Director General of FRIM, Chairman of APAFRI). Dr Razak also officially declared the Meeting opened.

### ***Session I Background for this meeting and APFORGEN***

#### **APFORGEN Updates (Mr Hong L.T, IPGRI-APO and Sim H.-C., APAFRI)**

Mr Hong reminded the participants of the process backing the initiation of APFORGEN programme and the past workshops. Dr Sim (APAFRI) presented the progress since the 2003 APFORGEN Inception Workshop. The actions taken on the recommendations of the 2003 meeting were briefly highlighted, noting that action was taken on most of the recommendations. However, some points were still missing such as that official endorsement, both at national and regional levels, should be obtained for APFORGEN (Recommendation 7/2003). The APFORGEN Steering Committee has not yet been formally established, but this will be done in the 1<sup>st</sup> Steering Committee Meeting, tentatively scheduled for 2005/2006. APFORGEN website ([www.apforgen.org](http://www.apforgen.org)) was introduced to participants.

#### **Common issues in FGR conservation in Southeast Asia (Tapio L. IPGRI-APO)**

Mr Tapio reviewed some of the common issues, challenges and developments identified in the country papers for 2001 and 2003 workshops. Despite many efforts, the forest genetic resources (FGR) in Southeast Asia are under heavy pressure from e.g. selective logging, the need of land for other activities, etc. Some of the common challenges include a) how to halt the loss of FGR and how to deploy FGR for better sustaining local livelihoods; b) lifting the awareness and profile of FGR and demonstrating the potential economic benefits of (indigenous) forest genetic resources to increase political commitment and create investments; c) sourcing of funding for conservation efforts. In addition, climate change & other risks such as invasive species are common potential threats to FGR across the region.

Past and ongoing regional projects related to FGR C&M in the region were listed. One of the ongoing international efforts related to FGRC included the development for the Global Strategy for Plant Conservation (a CBD agreement). It was also noted that Indonesia Forest Seed Programme and Indochina Tree Seed Programme are coming to an end. There have been many efforts and projects related to FGR C&M in the past, albeit scattered. The question was raised if APFORGEN and its partners would be able to collate and develop a list of 'good practices' that could be piloted in different countries to see if they worked.

The institutional framework for FGR conservation and management (FGRC&M) has improved considerably in many countries; many others are in the process of policy/legislative reforms, etc. Some of the common challenges were discussed and it was noted e.g. that resource generation would require a strategic approach. At least Thailand and Cambodia have produced a National Strategy for FGR Conservation.

It was noted that a large area (about 16.5% of land area) was designated as protected area (PA) of one kind or the other in the Southeast Asian region. What would be the impact of these PAs on FGR conservation and use? In the discussion it was suggested that one thing to do, perhaps, would be check if the species identified as "priorities" by the network are present in

these protected areas and are effectively conserved or not (based on number of areas, sizes of populations, genetic diversity within them etc.); then efforts should be focused on species that are not well protected in a range of PAs in the region. Furthermore, it has been observed that it is difficult to have a clear picture of how many species are effectively protected *in situ* or *ex situ* in the region. National information about conserved stands and populations may not be up to date, and, moreover, generally it has not been estimated whether conservation stands are really effective in maintaining the genetic resources over time. Some of the conservation stands listed may consist of few trees only. At least some 160 species are listed in the country reports, being included in either tree improvement projects or conservation stands in six countries of the region (Vietnam, Thailand, Malaysia, Cambodia, Lao PDR and Philippines). However, the real figure should be larger as some of the information available is rather old. Mention was made to the work done by DFSC (FLD) to review the applicability of different *ex situ* conservation techniques for FGR conservation.

As for the question of who is actually doing the work of maintaining FGR, it was noted that in general FGR conservation is the task of government agencies, such as forestry departments and national forest research institutions; the situation is highly variable across the countries, though. This would give rise to the question of centralized and/or decentralized conservation efforts. Leading national agencies in each country have been identified. Currently, the contributions by NGOs and community-based organizations (CBOs) to FGR conservation are small; however, it was commented that for the sustainability of the efforts, it is important that more and more public sector actions are implemented either through or with close collaboration with these organizations; they should become part of the national efforts.

It was also noted in the discussion that there are various guidelines being developed for conservation actions by different agencies and by individual countries. It was discussed whether APFORGEN could collate these and synthesize the information. Finally, the question of defining a national FGR programme was raised. Current status appears to be variable across the countries in the region (see below). The role of APFORGEN would be to support their development where necessary and to facilitate regional coordination, e.g. through a regional FGR conservation strategy. It was also noted that APFORGEN is not the first initiative to consider such regional approach.

### **FAO's FGR Programme and Tree Species Networks (Masakazu Kashio, FAO-RAP)**

Mr Masakazu Kashio (FAO-RAP) gave an overview of FAO's forest genetic resources programmes and activities in Southeast Asia. First, he gave an overview of some of the common issues in the institutional framework of the forestry sector in the region. Some of the common trends include decentralization of forestry administration, shift to more participatory planning, shift in administration of forestry services from agriculture/primary industries to environmental/natural resource ministries, as well as a marked increase in public awareness of the ecological and social services of the forests. One crucial challenge in many countries is resolving the issues of forest tenure, ownership, user-rights and common access issues.

Mr Kashio also presented the various species-specific FGR-related networks in the region (either current or completed) and discussed some of their problems and opportunities. For example, in the case of TeakNet (est. 1995), the constraints are related to difficulties in information flow and identifying funding opportunities. However, it was noted that the strength of TeakNet is that there is a lot of commercial interest in teak, which would generate resources for the network activities.

The SPINs, Species Improvement Networks - were funded by UNDP through the FORTIP project. Some of the issues highlighted by this initiative were: 1) sustainability - networks sponsored by external funds have their own life spans (most networks stop functioning

once funding stopped); 2) experts involved may be transferred or retired; and 3) long time is required to show results in tree breeding and improvement (c.f. the short time span of most donor-projects). On the other hand, in the discussion it was pointed out that in perennial tree crops like fruits and coconut, which have similar problems, successful improvement efforts have been made and hence it should be possible with timber tree species, too. Hence there is an urgent need to put in place a resource generation strategy - for example, through commercial approach (including sales of books and other publications produced by the networks).

### **Update on FGR networking in Europe (Jarkko Koskela, IPGRI-Rome)**

Dr Jarkko Koskela presented some updates of the FGR networking activities in Europe through the European Forest Genetic Resources Programme (EUFORGEN). In summary, some of the essential elements for the success of the Programme have been that there has been political support for management of FGR at national and pan-European level; EUFORGEN is fully financed by the 32 participating countries. Lately, EUFORGEN has e.g. published operational-level technical guidelines for the conservation of the genetic resources of key forest species in Europe. EUFORGEN is also working for the establishment of a European Information System on FGR.

It could be noted that even though EUFORGEN focuses more on sustainable management (SFM) and less on sustainable livelihoods than APFORGEN, there could be number of lessons to learn. To a question regarding the participants of the EUFORGEN Networks, Dr Jarkko noted that although the network was originally established by researchers, currently the composition is around 60% researchers and 40% forest managers/policy makers.

### **IPGRI's New Forest Genetic Resources Programme (Barbara Vinceti, IPGRI-Rome)**

Dr Barbara Vinceti presented the new institutional strategy of IPGRI ("Diversity for well-being") and its linkages to IPGRI's work on FGR for sustainable livelihood options. Sustainable Livelihoods Approaches (SLAs) are centered on people and their livelihoods. They prioritize people's assets (tangible and intangible), their ability to withstand shocks (the vulnerability context) as well as policies and institutions that reflect poor people's priorities, rather than those of the elite.

It has been estimated that about 300 million people earn part of all their livelihood and food from the forest. A total value of 90 billion USD of NTFP is harvested each year (Pimentel et al. 1997). Moreover, recent studies show that the capacity of many ecosystems to provide certain services has been declining. An important assumption is that a reduction in FGR diversity has a negative impact on livelihoods, but this has not been neatly demonstrated. Forest genetic studies can provide very practical answers to FGR management questions and lead to different conservation strategies. Dr Vinceti also presented a matrix analyzing the scale of different threats to FGR, including associated priority research issues. The matrix could serve as a useful guideline for identifying thematic priorities for APFORGEN.

The four FGR activities in the new IPGRI FGR strategy include 1) Strategies and priority setting; 2) Assessing the role of diversity for livelihoods; 3) Sustainable use of diversity: timber & NTFPs; and 4) Contribution to policies and awareness. Some of the identified challenges for this approach include: up-scaling, creating linkages with other disciplines, applicability of proposed solutions (costs vs. benefits), adoption of recommendations by policy makers as well as linking FGR research to larger initiatives - exploiting different opportunities (e.g., CDM, carbon sequestration projects).

In an example from a livelihood-ecosystem interaction in South America, mathematical models and simulations were used to predict what might happen under a given set of parameters, such as grazing pressure. It was, however, not clear if APFORGEN partners were familiar with this type of work.

During general discussion, Dr Sim requested the partners to give their opinion on the APFORGEN fact sheets published so far and, if these were found useful, then suggest new species for next series of fact sheets. It was commented that the fact sheets were rather useful, but required peer review. Additional species could be selected from the already existing priority lists, priority determined based on commonality for more than country. It was left for APFORGEN Secretariat to consider the continuation of this work.

It was also suggested that the IUCN Redlist could be used as a help for regional priority setting and later on one could categorize the identified priority species for example, for their usefulness and conservation status; conservation strategies could be developed based on these categories. Since current prioritization is based on the national priority lists, there could be a need to develop regional/subregional priorities for APFORGEN to focus on. This could be done through consultation with national representatives to network as well as experts on particular species in different countries and organizations in the region.

## ***Session II Forest genetic resources in Southeast Asia: National priorities and recent updates***

### **Country Status Report – Cambodia (So Thea, CTSP)**

Mr So Thea highlighted the recently developed National Forest Gene Conservation Strategy and Action Plan for Cambodia (2003), which would guide FGR management in the country. The strategy was developed by a multi-institutional working group representing forestry, environment and health sectors, universities, and non-governmental organizations. The institutional framework for the implementation of the Forest Gene Conservation Strategy is being considered. It was noted that full implementation of FGCS requires further external support and/or collaborative activities; there is ongoing collaboration with FLD (ex-DFSC) for piloting its implementation. There is no allocation specifically for FGR C&M from the national budget.

National forest policies and legislation have undergone reforms very recently; for example, the forestry law was revised in 2002. A 5-year Forestry Sector Action Plan is being currently drafted. In addition, there has been a recent restructuring of the Forestry Administration (ex-Department of Forestry and Wildlife) and decentralization of many activities (2004). The leading institution in the FGR sector in Cambodia is the Forestry Administration; most activities are currently carried out by the Cambodia Tree Seed Project.

Ongoing FGR management activities of the FA/CTSP include registration of seed sources and establishment of forest gene conservation stands, demonstration plots, provenance trials and seed orchards as well as promotion of community participation in the management of seed sources through so-called Village Seed Supply Systems. The aim is to increase the potential contribution of forestry for poverty reduction, while conserving FGR. Public awareness work for FGR has also been done extensively and this was also highlighted as one of the priority activities for the future. Important seed sources/conservation zones are protected by ministerial decrees or community forestry agreements. A GIS-based Gene-Ecological Zonation Model has been developed and it has proved very useful. As a capacity building need it was highlighted that there are too few trained botanists in the country.

## Country Status Report – Indonesia (Nur Masripatin, CBFTI)

In her presentation, Dr Nur Masripatin highlighted that forest genetic resources have received more serious attention in Indonesia during recent years. The institutional framework for FGR C&M is rapidly evolving. For example, the Indonesian Biodiversity Strategy and Action Plan (IBSAP) was released in 2003 and a draft Genetic Resources Utilization and Conservation Act is currently in the process of inter-sectoral consultation. In the National Programme on Forest and Land Rehabilitation, genetic conservation has been given more attention, especially in species selection for target regions. For example, species used for rehabilitation programmes in degraded conservation forests must be endemic to the targeted conservation areas. However, there is no regulation that would specifically address FGR. The decentralization and devolution of forestry administration has also impacted the work on FGR C&M. The National Commission and Working Group on Germplasm functions as a “national FGR Task Force”. Recently the ministers of the three key ministries (Minister of Forestry, Minister of Agriculture, and Minister of Environment) agreed to establish a Gene Bank Trust Fund for plants (including agricultural and forestry species) to support the existing gene banks. The Ministry of Forestry has focused its policy among other issues on forest genetic resources conservation and management (FGR C&M). Through the National Programme on Forest and Land Rehabilitation, the issuance of new regulation related to FGR C&M, as well as more budget allocation to R&D on FGR could be expected.

The institutions carrying out FGR C&M activities in Indonesia are relatively strong, though scattered throughout the large country. More than 100 institutions (including government and non-government institutions, research institutes and universities, etc) have been contacted by CBFTI to find out about their activities on FGR C&M. The key institutions for FGR work in Indonesia include Ministry of Forestry, Ministry of Agriculture, and Ministry of Environment. Some of the other major institutions include:

- Centre for Plant Conservation (ISI) (responsible for managing Botanical Gardens)
- FORDA (administers research centres in Yogyakarta and Bogor; 13 research institutes; *ex situ* conservation, genetic etc. research)
- MoF Technical Operational Units (responsible for conservation areas, esp. *in situ* conservation)
- Gadjah Mada University (manages *ex situ* conservation plots, research and education)
- Bogor Agriculture Institute (manages *ex situ* conservation plots, research and education)
- Bandung Technology Institute (genetic research)
- Perum Perhutani (state-owned company, manages ex-situ conservation plots; research)

As state organizations are numerous, some duplication of efforts in FGR C&M is unavoidable. The Centre for International Forestry Research is also based in Bogor. In addition, many NGOs are becoming active in the sector.

The most pressing challenges for increasing the work on FGR C&M include a) lack of funds, facilities and qualified human resources; b) awareness of the importance of FGR C&M is relatively low; and c) mobilization of alternative funding is still difficult. As the National Coordinating organization for APFORGEN, the CBFTI has established an APFORGEN Secretariat at CBFTI, disseminated information on FGR C&M to relevant institutions/organization (especially through e-mail), as well as organized a national workshop on FGR C&M to gather information on ongoing activities.

The expectations of the Indonesian partners to FGR networking through the APFORGEN programme include:

- Exchange of information;
- Exchange of germplasm for R&D activities;

- Increased regional collaboration in R&D;
- Training (e.g. characterization of genetic diversity, use of molecular genetics to assist conservation and breeding programmes); and
- Exchange of researchers and research managers among participating countries.

### **Country Status Report – Myanmar (Thaung Naing Oo, FRI)**

Mr Thaung Naing Oo presented the status of FGR C&M activities in Myanmar. Forestry sector is very important for Myanmar, contributing some 30% of the country's total export earnings during the 1990s. The Forest Department (FD) under the Ministry of Forestry (MOF) is responsible for FGR C&M activities in the country. The other relevant departments/organizations carrying out FGR-related decision-making are the Myanmar Timber Enterprise and Dry Zone Greening Department of the MOF. In the operational level, the Forest Research Institute (FRI) and the Wildlife and Nature Conservation Division (WNCD), under the supervision of the FD are undertaking FGR C&M activities in Myanmar. The WNCD is responsible of implementing conservation of wild fauna and flora through the establishment of protected areas. Relatively little attention could be given specifically to FGR C&M until these days. Specific national budget for FGR C&M activities is not allocated; funds for research on FGR as well as establishment of *in situ* and *ex situ* conservation are channeled through FRI and WNCD.

Statistics on forest plantations as well as national priority species were provided; in all there are some 770 000 ha of forest plantations in Myanmar, almost half of which is teak. A list of 30 most important tree species used in plantations was provided as well as a proposed national list of priority species for conservation.

Currently, FGR conservation and management is one of the major research priorities of FRI. Conservation and improvement of teak genetic sources has been a priority for long, owing to the importance of the species to the country. The Myanmar Selection System is the principal forest management system applied in managing natural forests since 1856. Silvicultural measures are applied, including selection of phenotypically best trees as mother trees to ensure genetically good and diverse natural regeneration. Internationally supported work of FGR conservation is presently focusing on bamboo species as well as on biodiversity assessments. The challenges for developing and strengthening the FGR C&M in Myanmar include: a) development of human resources e.g. through training courses on *in situ* and *ex situ* conservation strategies as well as on management of protected areas (PAs); b) development of an adequate knowledge base with respect to ecological information of flora; and c) allocation of adequate budget for research and development in FGR C&M. In addition, physical infrastructure and laboratory facilities, etc. may need to be upgraded.

The current Forest Policy of Myanmar was formulated in 1995; some of the imperatives of the policy include a) Protection of soil, water, wildlife, biodiversity and the entire environment; b) Sustainability of forest resources to ensure perpetual supply of the benefits accrued from the forests; and c) Participation of the people in the conservation and utilization of forests. The new Forest Law focuses on a balanced approach towards conservation and development issues implicit in the concept of sustainable forestry. Highlighting environmental and biodiversity conservation, the law encourages community forestry and people's participation in environmental and forest management. Community Forestry Instructions (CFIs) have been formulated in 1995 and a Community Forestry Programme has been launched; so far an area of 68843 ha of community forests has been established. The national FGR conservation strategy could include the following activities:

- Strengthening protected area system for FGR conservation
- Sustainable forest management of natural forests for FGR conservation

- Enhancement of seed production area
- Establishment of clonal seed orchards
- Further development of vegetative propagation and tissue culture methods

One of the issues highlighted in the presentation and in the following discussion was the issue of management of protected areas (PAs) to ensure FGR conservation. The management regimes applied in existing PAs are typically designed for conservation of forest ecosystems, which is often compatible with conservation of genetic resources *in situ*, but not always so. PAs also need to be designed for conservation of many species (especially priority species) and effectively conserved forest ecosystems can maintain a reservoir of continually evolving tree species and populations. Many potentially important species are not adequately represented in the PAs, nor included in any plantation and domestication programmes. More knowledge about the species, habitats and the intricate relationships between species is needed for effective planning of FGR conservation and management. In addition, the links between sustainable forest management (SFM) and FGR were discussed.

The status of production of planting material for reforestation programmes was discussed; though many SPAs have been established in Myanmar since 1980s (currently covering an area of more than 2000 ha), these cannot fully satisfy the demand for planting materials. Research on clonal propagation techniques and establishment of CSOs is ongoing.

### **Country Status Report – Malaysia (Lee Soon-Leong, FRIM)**

The country report presentation by Dr Lee S.L. provided an update of the activities since the 2003 APFORGEN workshop. First, organizations involved in FGR C&M activities were reviewed. The most relevant organizations are the Forest Department of Peninsular Malaysia; State Forestry Departments of Peninsular Malaysia as well as Sabah and Sarawak; Department of Wildlife and National Parks; Forest Research Institute Malaysia (FRIM); Sarawak Biodiversity Center as well as University Putra Malaysia, some NGOs and other agencies.

New policies relevant to FGR C&M are being processed: the new Biosafety Bill (final stage) deals with biosafety issues related to GMOs; Access and Benefit Sharing Bill (development ongoing) deals with regulating the access to biodiversity and benefit sharing arrangements arising from the utilization of biological resources; the new National Forest Plan/Programme (first draft stage) incorporates principles of the National Policy on Biological Diversity and serves as part of the governments' commitment to the UN Intergovernmental Panel on Forests (IPF) process.

Recent activities relevant to FGR also include the initiation of the development of a National Plant Conservation Strategy for Malaysia. FRIM acts as the focal point for the development of this strategy; members are various government agencies and departments. Sixteen targets adopted from the Global Strategy for Plant Conservation (GSPC) were discussed during the first national meeting in October 2004. The targets of the GSPC for 2010 were adopted by governments in CBD COP6 in 2002 (for more information of the GSPC, see the CBD website at <http://www.biodiv.org/programmes/cross-cutting/plant/default.asp>). Other new initiatives include the establishment of the Flora Malaysiana Centre, initiated by FRIM in 2001.

One of the most important ongoing FGR conservation projects at FRIM is the conservation research of endangered dipterocarps. The objective of this project is to generate biological information of endangered dipterocarps towards conservation management; 10 rare and endangered species are included in the project. There is also ongoing work on taxonomy of trees of Sabah and Sarawak, etc. In addition, the 4<sup>th</sup> National Forest Inventory results will be finalized soon.

One challenge for mainstreaming the work on FGR conservation in Malaysia is posed by the autonomy of state governments in most forestry and land use matters. Though the policy framework in Malaysia pays attention to FGR, the implementation of national policies, such as the National Policy on Biological Diversity, remains a challenge. The protected area network in Malaysia still has gaps in representation of certain habitat types. Other challenges include how to effectively communicate the research findings on FGR C&M to policy-maker level and how to overcome the gap between conservation research and conservation management. Finally, integrating FGR conservation into development plans will require intense efforts as the pressures for economic development and consumptive patterns are far greater than existing environmental awareness and concerns. It is a challenge of balancing economic development and the capacity of forests to provide necessary ecological services (water resources, preventing floods and droughts, etc.).

### **Country Status Report – Thailand (Vichien Sumantakul, DNP)**

Focused FGR C&M activities in Thailand started with tree improvement work on teak, pines and fast-growing trees in the 1960s. *Ex situ* conservation plots were established for indigenous and selected Central American Tropical pines in the 1960s; *ex situ* conservation of 8 local hardwood species was initiated in 1980s. Activities related to forestry and FGR are directed by the Ninth National Economic and Social Development Plan (2002-2006), which emphasizes management practices to restore the equilibrium in the utilization and conservation of natural resources and the environment.

The national focal point for FGR activities in Thailand is the National Park, Wildlife and Plant Conservation Department (DNP), more specifically the Division of Silviculture Research, with the capacity of some 30 professional staff working on FGR-related activities throughout the country. The tasks of DNP include promulgation of national parks, forest parks, wildlife conservation areas, non-hunting areas, botanical gardens and arboreta as well as forest tree improvement and establishment of *in situ* and *ex situ* conservation plots. The restructuring process of the government institutions responsible for FGR C&M is still ongoing and has impacted the work rather substantially. Other institutions doing relevant work on FGR include the Thai Plywood Company Ltd (TPC) and Forest Industry Organization (FIO) which carry out work on tree improvement for plantation forestry. In all, there is a need for increasing the human capacity through e.g. on-the-job training to improve the work on FGR conservation.

The National Forest Policy (1985) puts emphasis on sustainable management of forest resources. Some of the relevant statements include:

- Thailand intends to have at least 40% of its land area covered by forests.
- All stakeholders, including local people and ethnic minorities, are collectively responsible for protecting, managing and using forest land.
- Land use zoning that is suitable for the country as a whole must be undertaken carefully to conserve forest resources.
- Provide education on conservation and increase environmental awareness.

The Royal Forest Department (RFD) has drawn up a National Forest Land-use Plan covering the economic forest zone and the conservation forest zone. In 2002, the RFD, with the support of the FORGENMAP project developed a national Conservation Strategy for Forest Genetic Resources in Thailand. The Strategy includes a thorough analysis of the theoretical and institutional setting of FGR C&M in Thailand (though there have been some changes since) as well as management suggestions/plans for the conservation of important priority species in Thailand. An extensive public awareness campaign on the importance of trees and forests is

ongoing in Thailand (e.g. through the national television) and has shown good results. Some current challenges for FGR C&M activities include:

- Narrowing of genetic resources of some priority species due to reduction of forest resources in the country
- Insufficient trained manpower to carry out the work on FGR C&M
- Inadequate budget to run the programmes

Finally, it was recommended that financial support from international organizations should be sought by APFORGEN to help run the FGR programmes in the member countries, to set up collaboration network for information, germplasm and scientific staff exchanges in the region as well as to conduct regional training courses.

### **Country Status Report – Vietnam (Nguyen Hoang Nghia, FSIV)**

In his country update, Dr Nghia pointed out that the issue of FGR conservation has received considerable attention for long in Vietnam. In 1987 the Ministry of Science, Technology and Environment (MOSTE, later MOST) issued the first Regulation on Management and Conservation of Plant, Animal and Micro-organism Genetic Resources. The second official Regulation on the matter was issued in 1997 and guides the content and the ways of the work relating to conservation and management of genetic resources. The Regulation emphasized the priority in conserving native, precious and rare genetic resources which can be assessed and used in future for serving economic development of the country. The development of the national Forest Strategy 2020 and Forest Research Strategy 2020 are ongoing.

Since 1989, continuous funding has been given for research projects relating to conservation of genetic resources of agricultural crops, FGR, animal and micro-organisms. The Forest Science Institute of Vietnam (FSIV) has been appointed by MOST and the Ministry of Agriculture and Rural Development (MARD) as the national focal point for research on FGR C&M in Vietnam. FSIV also helps the staff of national parks and other nature reserves to carry out work on FGR C&M.

The government departments responsible for FGR C&M in Vietnam include the departments of MOST and MARD, such as the Forestry Department (FD, under MARD), which manages the forestry sector, including the Five Million Hectare Reforestation programme. The Forest Protection Department manages the system of Nature Reserves etc. The Science and Technology Department, (MOST) and the Science and Technology Department (MARD) provide funding and manage the research projects on FGR conservation. The Scientific Council of the MARD runs a Forest Committee which also deals with FGR-related issues and, therefore, could also function as a “National Task Force” or platform for discussing FGR C&M across the institutes. The MARD is responsible for FGR-related decision-making in Vietnam.

The lead institute (focal point) for FGR research in Vietnam is the Forest Science Institute of Vietnam (FSIV), with about 20 researchers involved. Some of the relevant FGR conservation/research projects of the FSIV include:

- “Conservation of FGR in Vietnam” supported by the MOST since 1990
- “Species diversity and *ex situ* conservation of some bamboos in Vietnam” supported by IPGRI, 2004 - 2005
- “Conservation of some threatened tree species in Vietnam” supported by Tropenbos International (the Netherlands), 2003 - 2005

The Central Forest Seed Company (CFSC) is responsible for supporting the reproductive material for e.g. the 5MHRP and also manages the DANIDA-funded Indochina Tree Seed

Project (2000–2004). Other institutions that carry out work relevant to FGR C&M include Forest Inventory and Planning Institute (FIPI, working on baseline inventory for forest cover change); Biotechnology Institute and Science and Technology Academy of Vietnam (work on using molecular markers for assessing genetic diversity of some native forest tree species); Institute for Ecology and Biological Resources (taxonomy); Forestry University as well as national parks and some other universities. In addition, some successful examples of local people's efforts of sustainably managing forest and tree resources can be displayed from Vietnam.

Some suggestions to support the work on FGR in Vietnam include organizing a national workshop for formulating a national strategy for FGR C&M; supporting MSc and PhD training (also overseas); establishing of a national network on FGR C&M, which would include researchers and managers from different agencies, as well as increasing the efforts on public awareness on the issue of FGR. In Vietnam, there is a number of highly threatened, endemic, conservation-dependent non-commercial species that can face extinction at any time. However, funding for their *ex situ* conservation is scarcely available. As for regional collaboration, it was suggested to increase the exchange of information as well as FGR experts (e.g. taxonomists), and to conduct study tours and training to share experiences on conservation strategies and methodologies.

### **Session III National FGR Programmes and Task Forces**

#### **Discussion and brainstorming: National FGR Programmes and Task Forces: National status and action plan for their establishment**

The purpose of this session was to assess the status of national coordination of FGR C&M activities in each country (e.g. national committees, working groups, task forces, programmes etc). The discussion was facilitated by Dr Koskela and Mr Hong. IPGRI has suggested the definition for 'National FGR Programme' as a '*formal but, participatory and open forum / consultation mechanism, where various stakeholders discuss, agree and jointly develop strategies and action plans on FGR, as well as provide recommendations for policy-makers.*' However, it has been noted that each country may have their own, slightly different definitions for National FGR Programme.

From the discussion it became obvious that countries have very different approaches and different types of institutional framework for work on FGR. Most countries already have some kind of national inter-institutional body in place that includes, or could include, FGR in the agenda and act as a national coordinating body/committee. It was noted that the definition of a 'FGR Task Force' is flexible and could include different approaches, depending on country. For example, national committees on PGR exist in many countries and it could be found out whether these could also include FGR matters. For example, in Indonesia there is a national Commission on Germplasm, where the Ministry of Forestry is also a member. Efforts could be done to create more discussion between the Ministries of Forestry and Agriculture; APFORGEN could facilitate in creating these cross-sectoral links. The Cambodian representative pointed out that in Cambodia, the agencies working on FGR related agencies are very few: in practice, only the FA, through the CTSP is actively doing work on FGR C&M; in such a case, what would the Task Force be like? The question of how to move forward in analyzing the needs and setting up national FGR Task Forces was discussed. The concept of organizing a national FGR workshop was also discussed; Indonesia has organized one earlier this year and the proceedings should soon be available. It was also reminded that one item in the Terms of Reference (TOR) of the National Coordinators is that they are responsible for linking and involving different national agencies working on FGR.

A suggestion given by some of the representatives was that **APFORGEN could help by providing guidelines for mainstreaming FGR C&M issues in forestry as well as working to increase awareness of FGR among timber agencies and policy-makers** so that they would realize the importance of FGR for SFM.

The issue of locating resources for FGR work was also touched. One item to be discussed is how to maintain some kind of national resources for FGRC after the donor-supported projects finish. The question is what kind of support is needed in the country level to push FGR in the national agenda. Timber companies should also be involved in supporting the work. It was noted that though the importance of FGR conservation would be realized, it, however lacks the urgency; therefore national governments do not pay high attention to it. Moreover, as pointed out by Mr Kashio, the FGR researchers and conservationists are still weak in proving the potential value of species conservation to policy makers, who consider that conserving ecosystems in the form of protected areas would be enough. If specific case studies on the potential value of species cannot be made, it is unlikely that the issue will be seen as priority. One recommendation for APFORGEN/IPGRI would be to collect and display such case studies. Dr Koskela also noted that few donors these days fund FGR conservation work as such, but channel the funds for work on livelihood generation.

## **DAY 2: Tuesday 30 November 2004**

### **National Forest Programmes and FGR (Simmathiri Appanah, FAO-RAP)**

In his keynote address '*Linking Forest Genetic Resources to National Forest Programmes*', Dr Appanah first raised the question of the purpose of conserving forest biodiversity, highlighted the threats to FGR and explained some of the issues and dilemmas in FGR conservation work. National activities for FGR C&M are dependent on elaborated national policies and programmes. National-level activities commonly include: a) Protection of rare, endangered species and populations; b) Regulation of seed collecting and transfer; and c) Ecosystem management (such as reduced impact logging, certification and forest valuation). However, strictly national approach has some limitations; for example, species cross borders and many species are more important outside their natural ranges than inside.

The global initiatives and relevant for FGR C&M include e.g. the CBD, IPF/IFF and Interagency Task Force on Forests (1995). Many projects, agreements, monitoring systems and technical mechanisms such as CITES, WCMC, Global Information System on FGR (REFORGEN) as well as networks have been developed and numerous workshop have been held to create action plans. Despite these, however, the forests and FGR are still being destroyed and results have been rather dismal. One common feature in these initiatives has been that emphasis has been on technical solutions over human factors, the true problems being the profligate, unsustainable lifestyles of the rich as well as consumption patterns that are beyond earth's sustainable production, while the world's poor are sent into desperation, becoming over-dependent on rapidly degrading natural resources such as forests. The current global and national policies and dialogues may have missed some important points, some examples being:

- Missing markets – real value of forests is not reflected in management decisions
- Timber concession policies – few private interests benefit from profligate use of public resources
- Reverse subsidies – support to agriculture, infrastructure, transportation
- Land ownership & tenure – positive relationship between secure tenure and tree planting has been shown

- Governance failures – coexistence of high incidence of poverty and large forest endowments
  - National governments ignore and displace communes
  - People excluded from decision making
- Gender inequity
- Ethical failures – corruption, illegal practices

In addition to these failures, private gains are sometimes created at public expense in the forestry/land use sector. Forestry officials and policy-makers may have not understood the non-monetary values of biodiversity, which are highly esteemed by local communities; examples of these values include e.g. NTFP genebank functions of forests, water quality considerations, religious values, etc. Local people and forestry officials may have a completely different perception of forests. Examples of joint forest management (JFM) schemes in India were given and problems related to breakdown of traditional/informal institutions and privatization of natural resources were highlighted. The issue of participative freedom was discussed and it was noted how difficult it is to provoke genuine and fair participation of all concerned parties over natural resources issues. Some capacity building is required to enhance genuine participation in the local level.

The concept of National Forest Programmes (NFPs) came out of the post-Rio forest policy dialogue and builds upon countries' commitment to IPF/IFF. NFP is a country-driven policy and planning tool, responsive to environmental, economic and social issues, linking with wider processes of sustainable development and poverty alleviation. One purpose of NFPs is also to mainstream multilateral agreements, such as CBD, CITES, ITTA, UNCCD, UNFF, UNFCCC and WTO to the national planning and decision-making process. NFPs set the policy framework for the achievement of SFM, based on a broad inter-sector approach.

Some of the key issues concerning NFPs and policies include a) How international support could best advance country-driven process; b) How to support inter-sectoral planning as well as successful decentralization and devolution; and c) Too "heavy" regulations do not function if enforcing institutions are weak. Some suggestions and considerations concerning forest policies include: a) How to promote private sector involvement; b) Shifting the focus of forest management from trees to rural development/sustainable development; c) Grant fee-based concessions for environmental services, tourism, etc; d) Reforms should take into account socio-economic conditions; e) Increase proportion of indigenous over exotic species in plantations; f) Enhance and conserve FGR through silviculture and management; g) The level of detail of regulations should be in accordance with the institutional capacity; h) Innovative financing systems should be sought to fund the work on FGR and NFPs; i) Policy systems should encourage varied uses of land.

In the discussion it was asked whether the National Coordinators have the backing of their respective governments. It was concluded that National Coordinators are officially nominated by the governments but cannot endorse the recommendations made through the APFORGEN programme without going through the proper channels of their respective governments. It was reminded by one of the NCs that in the meeting in 2003 the question of on which 'level' the National Coordinators should be in their organizations was discussed. Ideally, the NCs should have access to the policy makers, and also understand the technical issues relevant for FGR C&M, at least to some degree.

It was recommended that APFORGEN could be a mechanism through which to create messages to the policymakers; e.g. produce strong recommendations for the governments to look at the importance of genetic conservation. However, this should be done very strategically. Process of getting messages from scientific media to policy makers is long and difficult and

sometimes the message is understood wrongly. However, it was noted that in many countries the policy makers are already rather well aware of the issues. It was also commented that creating good forest policies is a bit more complex than, for example, agricultural policies.

The role of NFPs in FGR conservation was also discussed. The question was raised of how to build the linkages if the NFP does not yet address FGR. This would also be important for e.g. donor coordination; if FGR is included in the NFP, this would in the long term also facilitate obtaining funding for these activities. Dr Koskela gave the example from Europe where there may be very strong national forest programmes or policies but with no mention to FGR; the links between national PGR programmes and FGR may be nonexistent. A recommendation was given for APFORGEN to review the existing forest policies of a few countries.

The status of links between FGR and Sustainable Forest Management (SFM) was discussed. Many of the participating countries are in the process of developing or revising the national C&I for SFM. Finally, it was noted that the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) came in force this year. When the negotiations started, FGR was explicitly excluded. However, the list of species included to the ITPGRFA may be widened later.

#### ***Session IV Strengthening national capacity and regional collaboration for sustainable use of forest genetic resources in tropical Asia***

##### **Development of APFORGEN Southeast Asia Action Plan**

The purpose of the final session of the workshop was to draft an action plan for APFORGEN Southeast Asia for the next three years. During the session, items for the action plan were suggested and discussed by the participants. National Coordinators expressed their tentative priorities and interests. The draft action plan was handed over to the National Coordinators to be discussed at the national level. The National Coordinators are expected to provide feedback to the draft action plan, suggest additional themes and items and express priorities for activities to be carried out by APFORGEN and the countries. The deadline for feedback would be 28 February 2005.

The following main themes were included in the action plan:

1. National capacity building and training needs
2. Regional and national mechanisms for communication, information sharing and raising awareness of the importance of FGR
3. Policy analysis and support
4. Resource generation
5. Development of regional FGR projects/initiatives for priority themes and/or species
6. Other issues (such as exchange of forest reproductive material)

In the discussion, the question of how APFORGEN could help in building national capacity in FGR was raised. Dr Koskela presented about future training opportunities that would be organized by IPGRI. Dr Nur Masripatin briefed about the ongoing regional FGR-training programme organized by CBFTI. The question of who the training should be aimed for was briefly discussed. Dr Appanah raised the question of organizing training courses for local people and local communities; most of FGR management is after all carried out by local people.

As for information dissemination, many potential items were discussed, such as popularization of conservation science, documenting good examples and success stories, translation of key publications into local languages, making available information about past/present FGR conservation as well as tree improvement programmes (what has been done

and what is going on), and making necessary information accessible through e.g. the APFORGEN website. The question of to whom/which level information on FGR should be targeted was also discussed. Some countries expressed interest in organizing a national FGR workshop to assess the present status of activities.

To enhance policy analysis and support, it was suggested to APFORGEN Secretariat to participate to the regional forums by taking up the case for FGR conservation in relevant meetings. It was also suggested that APFORGEN initiative could somehow facilitate FGR-related policy dialogue in participating countries. APFORGEN should also undertake studies/reviews of how national policies have addressed FGR issues, and what is their effectiveness. The FAO representative also recommended APFORGEN to review the work done by past FGR C&M projects such as FORTIP, etc.

As for resource generation, it was e.g. suggested that APFORGEN Secretariat, together with the national partners should seek to develop partnerships with private sector and seek collaboration with existing programmes/activities.

The status of development of the concept notes initiated in the 2003 workshop was discussed. As for development of new projects, APFORGEN and participants were recommended to conduct need assessments and prioritize between project ideas, also taking into consideration the preferences of donors, etc. There was also some interest to exchange of forest reproductive material for research purposes; the issue was discussed between National Coordinators and the participants suggested this item to be included in the action plan.

Finally, the question of where APFORGEN should seek for endorsement was discussed. It was noted that the issue was already discussed in one of the recommendations of the 2003 workshop, but action has been delayed. Examples of regional forums where APFORGEN should seek endorsement include ASEAN, UNFF, CBD, COFO, APFC, regional forestry ministers meetings, etc. On the other hand, it may be difficult to obtain political support for a network as there are so many networks around. Dr Koskela commented that the example from Europe shows that it may be difficult to seek for national endorsement of APFORGEN as such, but a better approach would be to try to bring up the issue of FGR into the agenda of ministerial conferences etc. In this, the National Coordinators are in a key position to do so.

In the wrap-up discussion chaired by Mr Vichien Sumantakul, the attached workshop recommendations were drafted. The workshop closing remarks were given by Dr Daniel Baskaran Krishnapillay from FRIM who is also the Executive Secretary of APAFRI

## **WORKSHOP RECOMMENDATIONS**

The APFORGEN Southeast Asia National Coordinators' Meeting 2004 participants recommend:

1. The attached draft action plan (table) was developed to guide the activities in the region to be conducted by national FGR programmes and APFORGEN Secretariat, in collaboration and technical support of IPGRI, APAFRI and FAO. The role of National Coordinators is to revise the action plan with the participation of other relevant national stakeholders (national institutions/partners), identify priority actions and provide feedback to the Secretariat (deadline for the activity 28 February 2005). The APFORGEN Secretariat will then compile the sub-regional plan of actions for the APFORGEN programme for 3 years. Secretariat is to provide support to the countries in drafting the action plans.
2. National Coordinators to collect/document successful case studies demonstrating the potential/future value of forest genetic resources. APFORGEN Secretariat to

disseminate this information in a suitable format to create awareness of the importance of FGR.

3. APFORGEN, in collaboration with IPGRI, APAFRI and FAO and national partners as well as other experts to assist in the analysis of the implementation of national forest policies and NFPs of selected countries for FGR C&M.
4. FAO and APFORGEN Secretariat to explore ways to obtain political support/endorsement for the FGR work in general and APFORGEN in particular in the relevant international/regional forums, such as COFO/FAO and ASEAN (ASOF/AMAF).

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**Edited by** Mr Tapio L. (IPGRI)